

October 3 - 9, 2003

<P>The Terra spacecraft is in nominal mode. All instruments are in Science Mode.</P>

<P>Work to fully characterize and diagnose the cause of the Terra Solid State Recorder (SSR) superset failures continues. The SSR Anomaly Team continues to analyze data, track action items, disseminate information on investigation results, and meet regularly to identify the potential cause(s) of the anomalies. The most recent meeting on October 9, 2003, focused key areas of the investigation on Orbital Events, Radiation Effects, Commanding, and Degradation of SSR Components/Materials. All four anomalies occurred while Terra was over high Earth latitudes (greater than 60 degrees North or South Latitude) outside of South Atlantic Anomaly and Van Allen Belt high electron and proton flux regions, increasing the likelihood that high energy Galactic Cosmic Rays or energetic particles from the Sun may have affected SSR boards. The events also occurred in proximity to day/night terminator crossings, where large numbers of commands changing instrument modes and cycling heaters are automatically triggered in the Absolute Time Command (ATC) load. These may be coincidences or potential individual/compound causes of the anomalies. The anomaly team continues to examine subsystem plots for abnormalities other than the SSR current drop that allowed refined estimation of the specific time at which the SSR anomalies occurred.</P>

<P>  
Plans<br>

<UL>

- <li> The next maneuver (a lunar calibration roll maneuver for MODIS) is scheduled for October 15; and
- <li> Continue preliminary planning for potential third Deep Space Calibration Maneuver on December 6.

</UL>

</P>